



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,592	04/17/2000	Hiroichi Inada	KPO-138	1046

23353 7590 01/12/2004  
RADER FISHMAN & GRAUER PLLC  
LION BUILDING  
1233 20TH STREET N.W., SUITE 501  
WASHINGTON, DC 20036

EXAMINER

WONG, ALLEN C

ART UNIT PAPER NUMBER

2613

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/550,592

Applicant(s)

INADA ET AL.

Examiner

Allen Wong

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,7-9,12 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9,12 and 15-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-2, 7-9, 12 and 15-17 have been fully read and considered but are moot in view of the new ground(s) of rejection.

The certified copy of the foreign priority document Japanese 1999-111452 is received and acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 7-9, 12 and 15-24 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto (5,620,560) in view of Tanaka (5,815,594).

Regarding claim 1, Akimoto discloses a substrate processing system comprising:

first and second processing units adapted to process a substrate by a first treatment and a second treatment, respectively (col.3, ln.63 to col.4, ln.33, note Akimoto discloses the multiple processing sections for carrying out the resist coating and developing process where it includes the application of hydrophobic process to the substrate before applying photoresist with the spin coater or spin chuck); and

a transfer apparatus adapted to convey the substrate between the processing units including a substrate carrying arm adapted to hold the substrate when the transfer apparatus conveys the substrate (col.4, ln.6-13; in fig.1, a transfer system or apparatus

Art Unit: 2613

is disclosed in that the main arm 5 can carry the wafer or substrate from one processing unit to another one of many processing units 7, 7A, 8, 10, 11, 12 and 20, where liquid or the hydrophobic processing, adding the photoresist, and the heat or thermal treating processes are disclosed).

Akimoto does not disclose a first image pickup means, wherein the first image pickup means, used to pickup an image of a member of the processing units or the substrate being placed in the processing units, is mounted to the transfer apparatus such that the first image pickup means moves together with the substrate carrying arm at least when the substrate carrying arm is moving in a first direction. However, Tanaka discloses the use of a first image pickup means, where the image pickup means is mounted to the transfer apparatus (fig.1, element 75 is a first image pickup means, where the image pickup means is mounted to the system or apparatus as shown in fig.1). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Akimoto and Tanaka, as a whole, for implementing the image pickup means to capture the images during the movement of the substrate with the carrying arm so as to obtain a clearer view of the wafer or substrate processing tasks at hand during semiconductor applications. Also, according to court law, it would have been obvious to one of ordinary skill in the art to adjust or shift the location of the image pickup means to any location that would be convenient to provide the user a clearer view of the situation at hand.

Note claims 7-9, 12, 15-24 and 26-27 have similar corresponding elements.

Art Unit: 2613

Regarding claim 2, Akimoto does not disclose using the second image pickup means, however, Yamatsu teaches the use of additional image pickup means (col.6, ln.23, ln.44-45). Therefore, it would have been obvious to one of ordinary skill in the art to adjust or shift the location of the image pickup means to any location that would be convenient to provide the user a clearer view of the situation at hand. Also, it would have been obvious to one of ordinary skill in the art to duplicate the image pickup means for a multiplied effect of providing the user a clearer view of the situation at hand.

4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto (5,620,560) and Tanaka (5,815,594) in view of Hawkins (6,126,744).

Akimoto and Tanaka does not disclose the judging means to judge the process conditions based on the color tone or color shading of the substrate. However, Hawkins teaches that the determination of the process condition is based on color tones (fig.11 and col.15, ln.60 to col.16, ln.15). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Akimoto, Tanaka and Hawkins as a whole for aiding the adjustment necessary for proper heating of the substrate during semiconductor applications.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2613

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Allen Wong  
Examiner  
Art Unit 2613

Application/Control Number: 09/550,592

Page 6

Art Unit: 2613

AW

1/7/04



CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600